

ABSTRACT OF THE DISCLOSURE

A continuously operational biological reactor for the aerobic processing of animal waste into chemically free fertilizer includes an inner drum and an outer drum coaxially mounted on a horizontal center shaft with the inner annular surface of each drum including conveyor threads with the angularity of the conveyor threads being opposite each other so that the animal waste material can be conveyed down the inner drum and then back up the outer drum for processing into chemically free fertilizer. The biological reactor will include a hopper for receiving the material, a dewatering unit for material compression and preheater, and a mixer for introducing air and microbes to facilitate the processing. The center shaft includes instrumentation passageways for monitoring and control of the process and air flow passageways for diluting and discharging volatile substances such as methane.